SONY

XDCAM HD Camcorder
PDW-F355 / PDW-F335
XDCAM HD Recording Deck
PDW-F75
XDCAM HD Viewing Deck
PDW-F30
Drive Unit
PDW-U1

XDCAM HD Professional Disc System
CINEALTA
Professional Disc™ DL

XDCAM HD Systems Have Taken Another Step Forward for HD Production

Sony introduced the XDCAM™ HD series in response to rapidly growing expectations for a wider choice of high-definition (HD) video recording systems. Since that time, the XDCAM HD products have been widely adopted around the world by a wide variety of users such as cinematographers, production facilities, broadcasters, and video professionals. XDCAM HD products not only boast a stunning HD picture quality, but also enable advanced nonlinear recording on "Professional Disc™ " – an optical disc media based on blue-violet laser technology. Users have been enjoying the tremendous benefits of disc-based operations, such as instant random access and network capability to name just a few.

Sony has evolved its XDCAM HD lineup by introducing two new camcorders, the PDW-F355 and PDW-F335, and a new deck, the PDW-F75, to provide much greater format versatility and operational flexibility. One of the most advanced features of the new lineup is its long recording time of approximately 4.5 hours of 1080i HD video. This is achieved by a newly developed dual-layer disc, the PFD50DLA, which has an extremely large storage capacity of 50 GB*.

The full lineup now comprises two 1/2-inch-type three-CCD camcorders, the new PDW-F355 and PDW-F335, plus two decks, the new PDW-F75 and the PDW-F30. What's remarkable in the lineup is the addition of the new PDW-U1 drive unit, which offers a compact, mobile, and highly cost-effective solution for various applications. It serves as an external PC drive, connected via the Hi-Speed USB (USB 2.0) interface, and allows users to instantly view material recorded to Professional Disc media on their PC. It can also be used as a source feeder to nonlinear editing systems.

With greater system flexibility and operational conveniences, the enhanced lineup of Sony XDCAM HD products further expands the world of HD systems for all types of production.

*The PFD50DLA disc cannot be used in the PDW-F30 deck.


PDW-F335 Camcorder
PDW-F355 Camcorder
XDCAM HD
Professional Disc System
CINEALTA
PDW-F30 Recording Deck
PDW-F75 Recording Deck
PDW-U1 Drive Unit

XDCAM HD – Versatile, Disc-based HD Recording System

The Sony XDCAM HD system is a highly versatile production tool that offers flexible recording functionalities including a choice of video frame rates, interlace or progressive modes, recording data rates, and both HD or SD* formats.

*Selectable between 16:9 and 4:3 aspect ratios.

HD 1080 Recording using the "MPEG HD" Codec

The XDCAM HD products record 1080-line high-definition video using the "MPEG HD" codec that uses the industry-standard MPEG-2 MP@HL compression. The use of this codec, which is based on common MPEG compression, allows compatibility with many other devices such as nonlinear editing systems.

Selectable Bit Rates

Choosing the highest bit rate of 35 Mb/s results in the highest-quality pictures over a recording time of up to 150 minutes*, while choosing the 18 Mb/s bit rate provides a longer recording time of up to 265 minutes*.

*Approximate time in two-channel audio recording mode with the PFD50DLA (50 GB disc).

Wide Choice of Video Format – Interlace and Progressive Including Native "23.98P" Mode

The XDCAM HD products offer a wide choice of video formats for both frame rates and scanning mode. They include 1080/59.94i, 50i, 29.97P, 25P, and native 23.98P.

High-quality Uncompressed Audio Recording

In addition to HD video recording, high quality audio is an equally significant feature in the XDCAM HD system. The XDCAM HD products can record four-channel, 16-bit, 48-kHz uncompressed audio.

XDCAM HD Recording Specifications

HD Video Codec	Compression	MPEG-2 MP@HL		
	Sampling Rate	4:2:0		
	Bit Rate and Recording Time* (approx.)		PFD50DLA(50 GB)	PFD23A(23.3 GB)
		HQ, 35 Mb/s VBR	145 minutes (4-ch audio)	65 minutes (4-ch audio)
			150 minutes (2-ch audio)	68 minutes (2-ch audio)
		SP, 25 Mb/s CBR	190 minutes (4-ch audio)	85 minutes (4-ch audio)
			200 minutes (2-ch audio)	90 minutes (2-ch audio)
		LP, 15 Mb/s VBR	248 minutes (4-ch audio)	112 minutes (4-ch audio)
			265 minutes (2-ch audio)	122 minutes (2-ch audio)
	Number of Pixels	1440 x 1080		
SD Video Codec	Compression	DVCAM		
	Sampling Rate	4:1:1 (NTSC)/4:2:0 (PAL)		
	Bit Rate and Recording Time (approx.)		PFD50DLA(50 GB)	PFD23A(23.3 GB)
		25Mb/s	185 minutes	85 minutes
	Active Lines Per Frame	480 (NTSC)/576 (PAL)		
Audio	Compression	None (Linear PCM)		
	Number of Channels	2 or 4, selectable		
	Sampling Frequency	48 kHz		
	Quantization	16 bits/sample		

*When recording in HQ (35 Mb/s) or LP (18 Mb/s) mode, recording time may be more than the above specified figures depending on the actual bit rate that is adopted during VBR encoding.

HD/SD Switchable Recording and Up/Down Conversion Capability

The XDCAM HD camcorders and PDW-F75 deck* provide the powerful capability to record in DVCAM™ format with NTSC/PAL and 16:9/4:3 switchable modes, as well as the MPEG HD format. What's more, both the XDCAM HD camcorders and decks incorporate a down-conversion capability that allows material recorded in the MPEG HD format to be converted to SD signals and output via the SD video output connectors (including SD composite and i.LINK™** connectors). This enables users to view the material on an SD monitor or transfer it to other SD-based equipment such as a VTR or editor.
The PDW-F75 and PDW-F30 decks also boast an up-conversion capability, which allows material recorded in the DVCAM format to be converted to HD signals and output via its HD-SDI*** or HD analog component connector. These capabilities allow users to easily and flexibly migrate to HD-based operations at their own pace.

*The PDW-F75 deck provides DVCAM recording from inputs via the SD-SDI or SD analog composite interfaces, which require the optional PDBK-104.

**i.LINK is a Sony trademark used only to designate that a product is equipped with an IEEE1394 connector. Not all products with an i.LINK connector may communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connector for information on compatibility, operating conditions, and proper connection.

***HD-SDI output is only available on the PDW-F75.

File-based Disc Recording

In addition to its impressive HD picture quality, what makes the XDCAM HD system so distinguished is its file-based disc recording capability. This brings huge benefits such as instant random access and IT connectivity, to name just two.

PFD50DLA Professional Disc

Powerful Nonlinear Recording – the Professional Disc Media

Professional Disc™ DL

The XDCAM HD products use a large-capacity nonlinear optical disc for recording called Professional Disc media, which Sony has developed specifically for professional recording applications.
The PFD50DLA and PFD23A are 12-cm, reusable optical discs. The PFD50DLA is a dual-layer disc with an overwhelming capacity of 50 GB, while the PFD23A is a single-layer, 23-GB disc. The large capacity of the PFD50DLA makes it possible to record up to 265 minutes* of HD material. Professional Disc media is highly reliable and durable because it experiences no mechanical contact during recording or playback, and is packaged into an extremely durable and dust-resistant disc cartridge.
The non-contact recording and playback also makes it an ideal media for long-term storage of AV assets. Whereas traditional tape archive systems must be rewound on a periodic basis to remove magnetic powder debris, the Professional Disc media completely eliminates this process.

Its reliability has already been demonstrated by the huge number of XDCAM products that have been in the field since 2003.

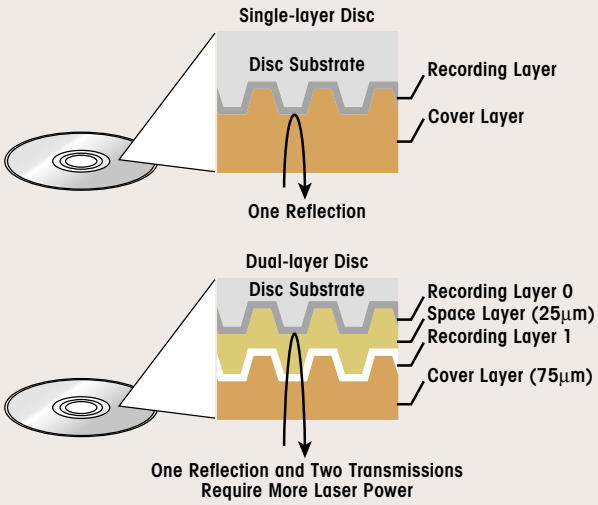
*This figure is approximate. The precise recording duration will depend on the bit rate selected.

The Key Technology Enabling Dual-layer Recording

The development of the new dual-layer disc, PFD50DLA has been long-awaited by users who want to achieve a much longer recording time on the XDCAM HD system. This large-capacity dual-layer disc with compatible disc drive, provide four technological advances:

1. Increased recording density and the dual-layer disc structure offer more than twice the capacity of the single-layer disc.
2. The new substrate and production method enhance the stable reflection and transmission of the laser.
3. The new pickup uses much higher laser power – enough to record on a dual-layer disc, while maintaining a long life equivalent to the pickup used for single-layer disc recording.
4. The newly developed servo-control mechanism – which is resistant to the noises that occur at laser reflections and transmissions at each layer – enables fewer access errors, even in unstable situations.

In addition to these new advances, the dual-layer disc provides superb robustness and reliability equivalent to those of the single-layer disc.



IT/Network Friendly

In the Sony XDCAM series of products, recordings are made as data files in the industry-standard MXF (Material eXchange Format) file format. This allows material to be handled with great flexibility in an IT-based environment – easily available for copying, transferring, sharing, and archiving. All these operations are accomplished without any "digitizing" process required. File-based data copying allows for degradation-free dubbing of AV content, which can be performed easily on a PC. The file-based recording system also allows for material to be viewed directly on a PC, simply by linking it to the XDCAM unit via an i.LINK or Hi-Speed USB (USB 2.0) connection*.
This works in just the same way as a PC reading files on an external drive.
The XDCAM HD camcorders and decks come equipped with IT-friendly, PC-based interfaces.
These include an i.LINK interface supporting DV OUT and File Access Mode as standard, plus a Gigabit Ethernet interface available on the PDW-F75 and PDW-F30 decks as an option. Connecting the XDCAM HD system to an Ethernet network offers users a new style of network-based operations that can dramatically improve the efficiency of their workflows.
The PDW-U1** drive uses the common USB interface for easy connectivity and wide compatibility with most PCs.

*Supported interfaces vary by products.

**The initial version of the PDW-U1 is read-only, and cannot write files onto Professional Disc media. However, this capability will be available with a software upgrade targeted for release in spring 2008.

No Overwriting to Footage – For Immediate Recording Start

By virtue of recording on optical disc media, the XDCAM HD system makes each new recording on an empty area of the disc. This is extremely useful, especially when shooting with camcorders, as it relieves the concerns of camera operators about accidentally recording over good takes, and eliminates the burden of searching for the correct position to start the next recording. In short, it means the camera is always ready for the next shot.

Instant-Access Thumbnail Search with "Expand" Function

With all XDCAM HD products, video and audio signals are recorded as one clip file each time a recording is started and stopped. During playback, cue-up to the next or previous clips is possible simply by pressing the 'Next' or 'Previous' button, as you would do on a CD or DVD player. Furthermore, thumbnails are automatically generated for each clip as a visual reference, allowing operators to cue-up to a desired scene simply by guiding the cursor to a thumbnail and pressing the 'Play' button. For further convenience, the 'Expand' function allows one selected clip in the Thumbnail display to be divided into 12 even-time intervals, each with their own thumbnail identifier. This is useful if you want to quickly search for a particular scene within a lengthy clip.

Expand Function

Scene Selection Function

The Scene Selection function allows simple cuts-only editing* to be performed within the camcorder or deck itself. The results of the edits can be saved as an XDCAM EDL (called "Clip List"), which can be written back to the original disc to stay with the material.
The disc can then be played back according to the Clip List so that only selected portions are played out in the desired order. The Scene Selection function presents dramatic improvements to conventional workflows, such as when transferring material to a nonlinear editor and/or server, or when searching for material and/or edit points in linear editing systems.
When GUI-based operation is preferred, the Scene Selection operation can also be performed on a PC running the PDZ-1 Proxy Browsing Software supplied with all XDCAM products, providing a visually familiar working environment.

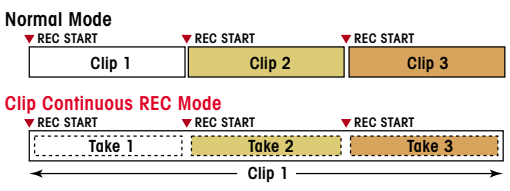
*The video and audio of a clip cannot be edited independently.

Selectable Modes of File Recording

XDCAM HD camcorders and the PDW-F75 deck provide two types of file recording modes. In standard operation, one clip file is created each time recording is started and stopped*. In the other mode, called Clip Continuous REC mode, which is a feature of the PDW-F335, PDW-F355, and PDW-F75**, one clip file can be created at the users discretion*. Although it is a single clip, Thumbnail Search operation and the Expand function are available just as if individual clips were created.
Users can choose the most suitable mode depending on the type of application.

*Each take needs to be longer than two seconds.

**Available when recording is remotely controlled via an RS-442A or RS-232C interface, or during Trigger REC mode via an HD-SDI interface.



Other Features

Power of Proxy Data – Highly Streamlined Workflows

At the same time as recording its high-resolution video and audio data, the XDCAM HD products also record a low-resolution version of this AV data on the same disc. Called "Proxy Data", this is much smaller in size than the high-resolution data (1.5 Mb/s for video and 0.5 Mb/s for audio), and its format is identical to that of the SD version of the XDCAM products.
Because of its lower resolution, Proxy Data can be transferred to a standard PC at an amazingly high speed, and easily browsed and edited using the PDZ-1 Proxy Browsing Software (or other compatible editing software offered by many industry-leading manufacturers). What's more, with the PDZ-1 software, it can be converted to the popular ASF format for playback on Windows® Media Player, providing dramatic improvements in production workflows. Proxy Data can also be viewed directly on a PC without data transfer using an i.LINK (File Access Mode) connection, and can even be sent over a standard Ethernet network.
The overall flexibility of Proxy Data means that it can be used for a variety of applications, such as immediate logging on location, off-line editing, daily rushes of shooting on location, client approvals, and more.

Editing Solutions

The XDCAM HD products are equipped with both conventional AV and IT-based interfaces for flexible integration into a wide array of editing environments.
These interfaces* include HD-SDI, HD analog component video, analog/digital audio, and RS-422A 9-pin remote control - enabling connection to a wide variety of VTRs, linear and nonlinear editors, and audio mixers.
SD interfaces**, including SD-SDI and SD analog composite, are also provided for down-converted SD outputs, allowing the XDCAM HD system to be integrated into a conventional SD-based editing environment as well.
Another interface that all XDCAM** devices provide is an i.LINK interface that supports DV OUT and File Access Mode. Recordings made in both MPEG HD and DVCAM formats can be output as DV files via the i.LINK port, and then be used in many DV-based nonlinear editing systems. The i.LINK (File Access Mode) allows not only SD (DVCAM) files but also HD (MPEG HD) files to be written (recorded) onto and read from Professional Disc media. This allows the user to establish an extremely compact and affordable HD nonlinear editing system, for example, using an XDCAM HD camcorder and an i.LINK-compatible laptop PC.
Another new, powerful, yet cost-effective option for the highly compact editing solution is the PDW-U1 drive unit. This can serve as an external drive of a PC via the common USB interface, and performs high-speed transfer of material recorded on Professional Disc media to a nonlinear editing system***.

*The supported interfaces vary by product.

**Except on the PDW-U1.

***The initial version of the PDW-U1 is read-only, and cannot write files onto Professional Disc media. However, this capability will be available with a software upgrade targeted for release in spring 2008.

Metadata

All XDCAM HD products are capable of recording a variety of metadata, which provides a huge advantage when searching for specific data after the initial recording has been made. Information such as production dates, creator names, and camera setup parameters can be saved together with the AV material on the same disc using the supplied PDZ-1 software. This makes it possible to organize and search through all recordings effectively. One particular metadata, called EssenceMark™ (Shot Mark), is a convenient reference that can be added to desired frames to make them easy to recall in subsequent editing processes.

EssenceMark (Shot Mark 1) Display

Easy Maintenance and High Reliability

The XDCAM HD products use the same platform as the XDCAM SD products that are in wide use around the world. Having the advantage of no mechanical contact between the equipment and recording media, both a high level of durability and long media life have been achieved. XDCAM HD products also offer the same high resistance to shock and vibrations provided by the SD version of the XDCAM products.

XDCAM HD Camcorders

PDW-F355/PDW-F335 Camcorder

The PDW-F355 and PDW-F335 are highly versatile and cost-effective HD camcorders that are equipped with three 1/2-inch-type HD CCDs, and offer HD recording in 1080/59.94i, 50i, 29.97P, 25P, and 23.98P modes – as well as DVCAM-format recording. A rich variety of features useful for creative shooting are incorporated into these camcorders such as interval recording, slow-shutter, and selectable gamma curve. Additionally, the PDW-F355 provides a "Slow & Quick Motion" function, which is also commonly known as "over-cranking" and "under-cranking".

Disc recording provides users with a number of benefits that are specifically useful during shooting. For example, because new footage is always recorded onto an empty area of the disc, there is no need to cue-up to the next recording position before shooting. This means that operators can start shooting without the worry of accidentally recording over existing footage.

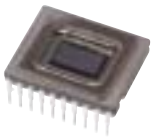
In short, the XDCAM HD camcorders are ideally suited to a broad array of shooting opportunities such as event shooting, news gathering, field productions, and indie productions.

PDW-F355

PDW-F335

1/2-inch type Three HD Power HAD CCD

The XDCAM HD camcorders are equipped with three 1/2-inch-type HD Power HAD™ CCDs, each with a high density of approximately 1.56 megapixels (1440 x 1080). These extremely high-performance CCDs provide an outstanding sensitivity of F9 (at 2000 lx, 3200K), a remarkable signal-to-noise ratio of 54 dB, and a low vertical smear level of -120 dB.



12-bit A/D Conversion

The XDCAM HD camcorders incorporate a high-integrity 12-bit A/D conversion circuit, which allows images captured by the Power HAD CCDs to be processed with great precision.
This high-resolution A/D conversion allows the contrast to be reproduced faithfully in both mid-to-dark tone and bright areas of the picture.

Advanced Digital Signal Processing (ADSP)

A key to quality in DSP cameras is how many bits are used in their nonlinear processes, such as gamma correction. The ADSP of the XDCAM HD camcorders uses more than 30 bits in nonlinear processes, minimizing round-off errors to maintain the high quality of the Power HAD CCDs. The ADSP also enables highly sophisticated image controls, such as skin tone detail control and Dynamic Contrast Controls.

Multi-format Recording – HD/SD and Interlace/Progressive

One of the big appeals of the XDCAM HD camcorders is their highly flexible multi-format recording capability. Users can select a recording format from HD (MPEG HD) or SD (DVCAM), 59.94i/50i interlace mode, or 29.97P/25P/23.98P progressive mode.Operators can use this camcorder for multiple purposes, both today and into the future.

Creative Versatility for Movie Making

The XDCAM HD camcorders, part of Sony's proud CineAlta family, provide many creative features for producing a variety of movies. They offer the Slow & Quick Motion Function (PDW-F355 only) for stunningly impressive slow and fast motion images, and Selectable Gamma Curves that are inherited from the top-of-the-line CineAlta camcorder. The Interval Recording function is another tool to create unique ultra-fast moving images.

Slow & Quick Motion Function (PDW-F355)

The PDW-F355 offers a powerful Slow & Quick Motion Function that enables users to create elegant fast- and slow-motion footage – commonly known as over- and under-cranking in film shooting. The PDW-F355 can capture images at frame rates selectable from four fps (frame per second) to 60 fps in increments of 1 fps.
For example, when viewed at 23.98P, images captured at four fps will appear six times faster than normal. Conversely, images captured at 60 fps will appear 2.5 times slower than normal. The quality of the slow- and fast-motion images created using the Sony PDW-F355 camcorder is extremely high and incomparable to those created in the editing process. Another spectacular thing about this feature is that users can see the results right in the camcorder's LCD screen, without using any converters or processing on nonlinear editing systems.
This great feature maximizes users' shooting creativity while achieving a high level of overall efficiency.

Format	Capturing
23.98P/29.97P	4P-60P in 1P increments
25P	4P-50P in 1P increments

*When capturing at 31-60 fps (in 23.98P/29.97P mode)/26-50 fps (in 25P mode), the camcorders provide lower vertical resolution than in normal capturing mode.

*This function is available when the recording mode is set to "MPEG HD".

Enhanced 24P Operation

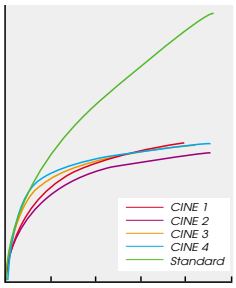
For cinema and other high-quality production users, the new PDW-F355 camcorder provides enhanced 24P operations. Genlock video input is available for 23.98PsF signals, allowing multi-camera operations in 23.98P mode. It is also possible to output 23.98PsF signals as well as 2-3 pull-downconversion signals from the HD-SDI connector.

Interval Recording Function For Versatility and Creativity

The XDCAM HD camcorders offer an Interval Recording Function, which intermittently records signals at pre-determined intervals. This is convenient for shooting over long periods of time, and also when creating pictures with special effects of extremely quick motion.

Selectable Gamma Curves

The XDCAM HD camcorders allow operators to choose from five types of gamma curves (Standard, CINE 1, 2, 3 and 4). The CINE 1-4 gamma curves provide natural tonal reproductions for scenes with wide dynamic ranges.
The CINE 1 and 2 curves are inherited from HyperGamma, which is available on the top-of-the-line CineAlta camcorder.

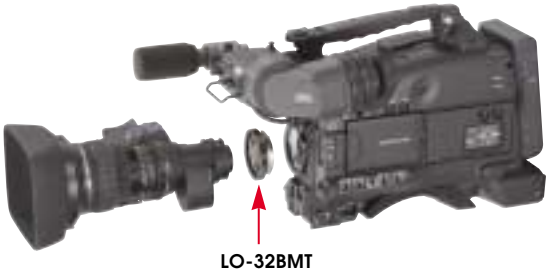


A Wide Choice of Lenses

VCL-719BXS/B

The PDW-F335K model comes equipped with the VCL-719BXS/B servo focus lens. This convenient auto-focus lens helps operators to adjust the focus during manual-focus mode simply by pushing the "PUSH AF" button.
It also provides a full-time auto-focus function that automatically tracks the focus in a dynamic manner. This is especially convenient for one-man shooting situations, for example, where the camera operator is also performing other tasks and does not have the capacity to alter the focus manually.
In addition to this auto-focus lens, a variety of 1/2-inch-type HD lenses are separately available from major manufacturers to offer optimum performance of the XDCAM HD camcorder.
A 2/3-inch-type lens* can also be used with the XDCAM HD camcorder via its lens connector and the optional LO-32BMT lens adaptor.
This allows users to choose from a broad range of lenses, including cinema-style lenses, according to their particular shooting requirements.

*In this configuration, the resulting focal length will be 1.37 times the actual focal length of the lens.



LO-32BMT

Low-Light Shooting With 'Slow-Shutter' and 'Turbo Gain' Functions

Sony XDCAM HD camcorders offer two convenient features – Slow Shutter function and Turbo Gain function – for shooting in low-light conditions, which can be used alone or together depending on the situation or the operator's preferences.
The Slow Shutter function allows operators to use shutter speeds longer than the frame rate, and to intentionally blur images when shooting a moving object, for increased shooting creativity.
The Turbo Gain function allows the camera gain to be boosted up to +48 dB.

Picture Cache Recording

The XDCAM HD camcorders offer a "Picture Cache Recording" function that is especially useful during ENG applications. Up to 12 seconds of audio and video signals are buffered into the camcorder's memory before the Rec button is even pressed (when in Standby mode). This means that everything that happened 12 seconds before the Rec button was pressed will still be recorded onto disc – thereby preventing the loss of any unexpected, yet important events.

Flexible Image Controls

The XDCAM HD camcorders offer highly advanced image control features such as Skin Tone Detail and Dynamic Contrast Control, allowing operators to create stunning images.

High-Quality Audio Recordings

Sony XDCAM HD camcorders record high-quality uncompressed four-channel audio in HD recording mode. They are also equipped with a range of audio interfaces.

Compact and Lightweight Body

XDCAM HD camcorders are designed to be very compact, lightweight, and ergonomically well balanced, providing a high level of mobility and comfort in various shooting situations. They weigh only 5.5 kg (12 lb 2 oz) including viewfinder, microphone, disc, and BP-GL95 battery pack.

Shock and Dust-resistant Disc Drive

To minimize errors caused by shock or dust entering the disc drive, XDCAM HD camcorders have several unique ways of providing operational resistance to such factors. The disc drive entrance is concealed by two lids, helping to prevent any dust from entering the drive. In addition, four rubber dampers are used to hold the disc drive block in place and to absorb the shocks that would otherwise go into the disc drive.

3.5-inch* Color LCD Screen

A large, easy-to-view, color LCD screen on the camcorder's side panel enables operators to instantly review recorded footage, as well as access the camera's set-up menus and view status indications such as four-channel audio meters, and the remaining disc and battery time. It also enables advanced operations such as Thumbnail Search and Scene Selection.

*Viewable area measured diagonally.

Wide Variety of Interfaces

The XDCAM HD camcorders come equipped with a wide range of interfaces as standard. The PDW-F355 and PDW-F335 provide different combinations of interfaces – each optimized for various operational needs.

	PDW-F355	PDW-F335
Input	Front stereo microphone, audio (2-ch), timecode, genlock	Front stereo microphone, audio (2-ch), timecode*, genlock
Output	HD-SDI/SD-SDI, SD analog composite, timecode, audio (XLR 5-pin)	HD analog component**/SD analog component (select-table), SD analog composite, timecode*, audio (Pin jack)
Others	i.LINK	i.LINK

*Timecode input and output of the PDW-F335 share the same connector.

**1080/23.98P recordings are output as 1080/59.94i signals via 2-3 pull-downconversion.

Easy-to-see Viewfinder

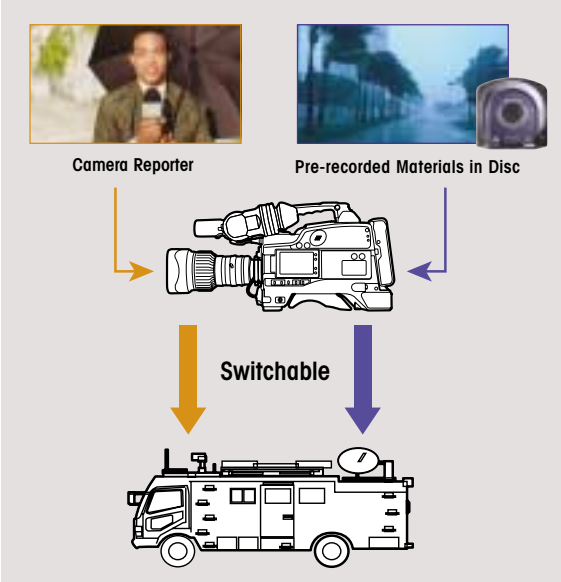
The PDW-F355 and the PDW-F335 are equipped with the DXF-20W 2.0-inch* monochrome viewfinder as standard. This enables convenient manual focusing when shooting MPEG HD footage in the 16:9 widescreen format.

*Viewable area measured diagonally

Live & Play Function

The PDW-F355 camcorder has a "Live & Play" function that can simultaneously output both playback signals (images already recorded) and incoming camera signals (images seen through the viewfinder). Both signals are fed to their respective output and viewfinder connectors independently, and can be viewed at the same time. This allows users to frame the next shot, adjust the exposure, and even focus the lens while the camcorder is playing back recordings from the disc.

Application Example at News Gathering



Noise Reducing Mode

The XDCAM HD camcorders incorporate a noise-reducing mode to reproduce low-light scenes clearly.

Other Camcorder Features

- Built-in ND filter wheel: Clear, 1/4ND, 1/16ND, 1/64ND
- Down-conversion output: MPEG HD playback can be converted to SD signals and output via the SD composite, component*, or i.LINK (DV OUT) connector
- Freeze Mix function: superimposes a previously recorded image on the viewfinder. This allows the operator to quickly and easily frame or reposition a subject when a shot must be taken from the same position or in the same framework as a previous take
- Thumbnail Search operation
- Expand function
- Scene Selection function for in-camera cuts-only editing**
- Ability to write EDL (the result of the Scene Selection) back onto disc
- Proxy Data recording
- Four assignable buttons: two on the camera handle and two on the inside panel, which enable operators to assign frequently used functions
- Auto Tracing White Balance for automatic adjustments in camera color temperature according to lighting changes
- Memory Stick™ and Memory Stick Pro™ media function (up to 2 GB): for storage of camcorder setup files
- Metadata recording: UMID, Extended UMID, Essence Mark (Shot Mark)
- Sony WRR-855 Series Wireless Microphone Receiver can be easily attached to the camcorder via the optional CA-WR855 adaptor
- Remote control operation via the Sony RM-B150 and RM-B750 remote control units
- Intelligent light system synchronizes strobe on/off to the REC button
- Four types of software supplied***: PDZ-1 Proxy Browsing Software, PDZ-VX10 XDCAM Viewer Software, Proxy Viewer Software, and PDZK-P1 XDCAM Transfer Software (for use with Apple Final Cut Pro™)

*SD component output is only available on the PDW-F335.
**The video and audio cannot be edited independently.
***The latest versions of software can be downloaded from the Sony Website. Please contact your nearest Sony office for details.

Top view

Connector Panel (PDW-F355)

Side

Rear

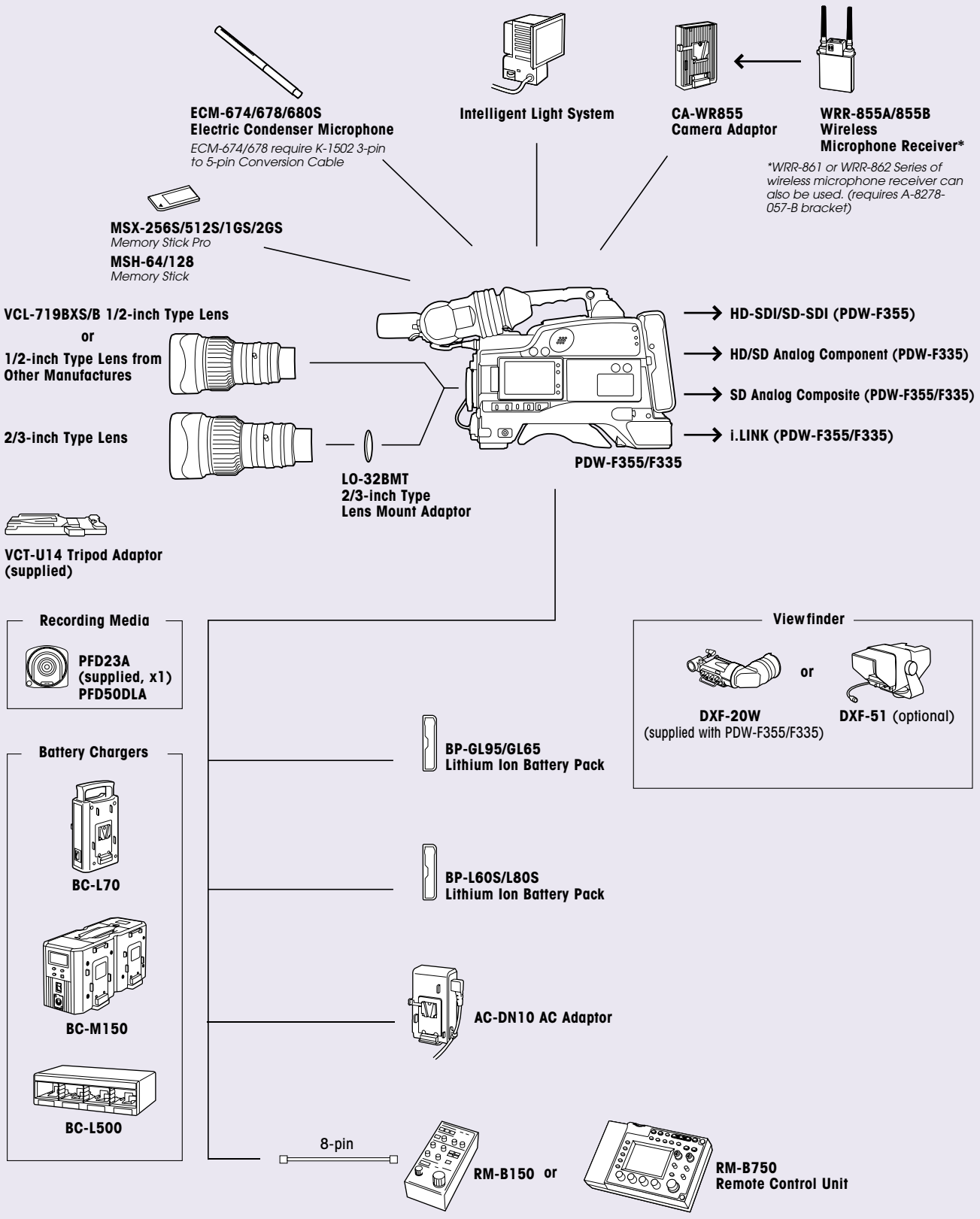
Connector Panel (PDW-F335)

Side

Rear

Camcorder System Diagrams

Unless specified as "supplied", all the components below are optional.



XDCAM HD Decks / Drive / Cart

PDW-F75 Recording Deck / PDW-F30 Viewing Deck / PDW-U1 Drive Unit / PDJ-A640 Cart

The XDCAM HD decks are highly versatile, and can be used for many different applications including HD video recording, linear/nonlinear editing, and presentations at large exhibition or conference venues.
The PDW-F75 is a powerful recording deck that is equipped with a comprehensive range of interfaces including HD-SDI input and output, HD analog component, composite outputs, and more. It can record in both MPEG HD and DVCAM formats* for recording flexibility. What's more, the PDW-F75 can handle the new PFD50DLA dual layer disc and the PFD23A disc, achieving a long recording time of approximately 4.5 hours for HD recording. The PDW-F30 is an NLE feeder/viewer-type deck, but also offers the capability to record MXF files (in both MPEG HD and DVCAM formats) via its i.LINK (File Access Mode) or Ethernet** interfaces. Both models also offer the capability to input and output a 25-Mb/s HDV stream (MPEG-2 TS) for interfacing with HDV™ products or HDV-based nonlinear editors via their i.LINK port***.
These decks are equipped with a VTR-like jog dial, providing familiar and fast control of the playback. In addition to the random-access capability, "Thumbnail Search", "Expand", and "Scene Selection" functions significantly increase operational efficiency.

*Possible from inputs via the SD-SDI or SD analog composite interfaces, which require the optional PDBK-104 board.
**Requires the optional PDBK-101 board.
***Requires the optional PDBK-102 board.

PDW-F75

PDW-F30

PDW-F75 Features

- MPEG HD recording at 35, 25, and 18 Mb/s via HD-SDI, HD analog component, and RGB input (HD analog component and RGB input requires the optional PDBK-103 board)
- Up-conversion recording (requires the optional PDBK-104 board): Input from SD-SDI or SD composite connectors can be recorded in the MPEG HD format
- Compatible with the PDJ-A640 Cart*
- Recording in the DVCAM format from input via the SD-SDI or SD analog composite interfaces (which require the optional PDBK-104 board)

PDJ-A640

- Handles both the new dual-layer disc (PFD50DLA) and single-layer disc (PFD23A)
- Three types of picture output modes are supported: Edge crop, Squeeze, and Letterbox (16:9/14:9/13:9), as well as down-conversion output
- Trigger REC function (synchronized recording with compatible camcorders** via an HD-SDI input)
- Clip Continuous REC mode***

*Requires the optional PDBK-A640 cart mount kit
**HDW-730/750 series, HDW-790, and HDW-F900R HDCAM™ camcorders.
***Available when recording is remotely controlled via RS-442A or RS-232C interface, or during Trigger REC mode via an HD-SDI interface.

Common Features

- Playback of MPEG HD and DVCAM material
- Down-conversion output: MPEG HD playback can be converted to SD signals and output via the SD-SDI*, SD composite, and i.LINK (DV OUT) connectors.
- Up-conversion output: DVCAM playback can be converted to 1080i HD signals and output via the HD connectors.

- Thumbnail Search operation
- Expand function
- Scene Selection function for in-deck cuts-only editing**
- Equipped with a Jog/Shuttle dial, providing VTR-like operation – Jog: ±1 time normal speed, Variable: -1 to +2 times normal speed, Shuttle: ±20 times normal speed

- 16:9, 3.5-inch*** color LCD screen for displaying playback pictures, audio monitors, timecode and setup menus
- Repeat playback function
- A simple Remote Commander™ unit is supplied.
- Gigabit Ethernet capability for network-based file transfer (requires the optional PDBK-101 board)
- Input and output 25 Mb/s HDV stream (MPEG-2 TS) for interfacing with HDV products or HDV-based nonlinear editor via an i.LINK port (requires the optional PDBK-102 board)
- Compact and lightweight design; can be placed either horizontally or vertically
- Four types of software supplied****: PDZ-1 Proxy Browsing Software, PDZ-VX10 XDCAM Viewer Software, Proxy Viewer Software and PDZK-P1 XDCAM Transfer Software (for Apple Final Cut Pro)

*SD-SDI interface is available only on the PDW-F75 deck.
**The video and audio cannot be edited independently.
***Viewable area measured diagonally.
****The latest versions of software can be downloaded from the Sony Website. Please contact your nearest Sony office for details.

Inputs/Outputs

		PDW-F75	PDW-F30
Input	HD-SDI	●	—
	HD analog component	● w/PDBK-103	—
	RGB	● w/PDBK-103	—
	SD-SDI	● w/PDBK-104	—
	SD analog composite	● w/PDBK-104	—
	Digital audio	●	—
	Analog audio	●	—
	Timecode	●	—
	Reference	●	—
Output	HD-SDI	●	—
	HD analog component**	●*	●*
	RGB	●*	●*
	SD-SDI	●	—
	SD analog composite	●	●
	Digital audio	●	—
	Analog audio	●	●
	Audio monitor	●	●
	Timecode	●	—
Others	i.LINK (DV OUT)	●	●
	i.LINK (File Access Mode)	●	●
	i.LINK (HDV)	I w/PDBK-102	● w/PDBK-102
	Ethernet	I w/PDBK-101	● w/PDBK-101
	Remote	RS-422, RS-232C	RS-422, RS-232C

*HD analog component and RGB outputs share the same D-Sub 15-pin connector.

**1080/23.98P recordings are output as1080/59.94i signals via 2-3 pull-down conversion.

Interface Options

Four types of optional boards are available for the decks:

- PDBK-101: Provides a Gigabit Ethernet interfac with the PDW-F75 and PDW-F30
- PDBK-102: Allows 25 Mb/s HDV stream (MPEG-2 TS) to be input and output between the PDW-F75/F30 decks and an HDV device
- PDBK-103: Provides the HD analog component and RGB inputs with the PDW-F75(these inputs share the same BNC connectors)
- PDBK-104: Provides the SD-SDI and SD composite input with the PDW-F75

*Only one of the PDBK-102, PDBK-103 or PDBK-104 boards can be installed at any one time.

PDW-F75

PDW-F30

PDW-U1

The PDW-U1* is a new, powerful addition to the XDCAM HD lineup, which offers a compact, mobile, and highly cost-effective solution for many different applications.
It serves as an external drive connected via a common USB interface, and enables material recorded on Professional Disc media to be viewed directly on a PC. The PDW-U1 can also be used as a source feeder for nonlinear editing systems.
One of the most distinguished features of the PDW-U1 is its capability to handle both XDCAM HD and SD discs, providing a high level of versatility and cost-efficiency.
Its compact and lightweight design makes it equally ideal for field and in-house desktop uses.

PDW-U1 Drive Unit

- Handles files in all formats of XDCAM HD and SD formats
- Handles both the new dual-layer disc (PFD50DLA) and single-layer disc (PFD23A)
- Supports the Hi-Speed USB (USB 2.0) interface - compatible with most PCs
- Direct access to files on Professional Disc media from a USB-connected PC
- High-speed file transfers with the newly developed optical drive
- Material browsing on the supplied PDZ-VX10 XDCAM Viewer software** and PDZ-1 Proxy Browsing software**
- Highly compact and lightweight
- Dimensions (W x H x D): 59 x 164 x 226 mm (2 3/8 x 6 1/2 x 9 inches)
- Mass: 1.4 kg (3 lb 1 oz)
- Can be operated either horizontally or vertically

*The initial version of the PDW-U1 is read-only, and cannot write files onto Professional Disc media. However, this capability is planned to be available with a software upgrade targeted for release in spring 2008.

** The latest versions of software can be downloaded from the Sony Website. Please contact your nearest Sony office for details.

		PDW-U1
Power requirements		DC 12 V
Power consumption		10 W
Operating temperature		5 to 40 °C (+41 to +104 °F)
Strage temperature		-20 to +60 °C (-4 to +140 °F)
Humidity		20 to 90% (relative humidity)
Mass		1.4 kg (3 lb 1 oz)
Dimensions		59 x 164 x 226 mm (2 3/8 x 6 1/2 x 9 inches)
Recording /playback format	Video	MPEG HD (35/25/18 Mb/s) MPEG IMX (50/40/30 Mb/s) DVCAM (25 Mb/s)
	Proxy Video	MPEG-4
	Audio	MPEG HD: 4/2 ch/16 bits/48 kHz MPEG IMX: 8 ch/16 bit/48 kHz, or 4 ch/24 bit/48 kHz DVCAM: 4 ch/16 bit/48 kHz
	Proxy Audio	A-law (8/4/2 ch/8 bit/8 kHz)
Interfaces		Hi-Speed USB (USB 2.0) x1
Supplied accessories		Operation manual (x1) PDZ-1 Proxy Browsing Software (x1) PDZ-VX10 XDCAM Viewer Software (x1) Proxy Viewer Software (x1) PDZK-P1 XDCAM Transfer Software (x1) Setup utility software (x1)

PDJ-A640 Cart Features

The PDJ-A640 is automated robotic cart system ideal for multi-disc ingesting, archiving, and on-air operations. It accommodates up to four PDW-F75* decks and up to 640 discs. The PDW-1500 deck in the SD version of the XDCAM lineup can also be installed in the PDJ-A640 cart.

This cart system is equipped with a standard VCC control protocol, allowing easy integration into existing systems. The total storage capacity is 15 Terabytes using 640 discs. PDJ-CS10 Cart Interface Software is available to interface with MXF-compliant systems such as editors and servers.

With the XDCAM's file-based operations and metadata capability, as well as the reliability, long life and small physical size of the Professional Disc media, this system provides significant operational benefits, greater reliability, reduced operational costs, and space-saving benefits compared to tape-based systems.

*Requires the optional PDBK-A640 cart mount kit.

- Ideal for multi-disc ingesting, archiving, and on-air playout applications
- Equipped with VCC protocol (RS-422 or RS-232C)
- Equipped with a barcode reader unit
- Optional PDJ-CS10 software to interface with MXF compliant systems such as editors and servers
- High reliability and low-cost maintenance

PDJ-A640 connector panel

PDJ-A640 with two PDW-F75 decks and two PDW-1500 decks

XDCAM Application Software

All XDCAM HD products come with a variety of free application software packages that maximize the benefits of the XDCAM's disc- and file-based operations.

■ PDZ-1

The PDZ-1 software is a simple-to-use PC application that allows users to easily browse and storyboard video clips recorded by an XDCAM system. It runs on Windows-based PCs and supports three types of interfaces: i.LINK (File Access Mode), Ethernet, and USB (only for connection with the PDW-U1). Once Proxy Data recorded on a Professional Disc media is transferred to a PC with the PDZ-1 software installed, users can conveniently view and storyboard recorded footage right on the PC. The PDZ-1 software also provides a variety of convenient tools for disc operations such as entire or partial disc copy (dubbing), and transfer between two XDCAM devices.
Storyboarding on a PC not only allows users to preview their edited sequences instantly, it also provides other powerful benefits such as the creation of ASF files (playable on Windows Media Player) and EDL data in various EDL formats, plus the transfer of high-resolution clips selected in the edited sequence.

PDZ-1 Features

- Supported interfaces: i.LINK (File Access Mode), Ethernet, and USB (only for connection with the PDW-U1)
- High-speed ingestion of Proxy Data from the XDCAM devices
- Browsing of Proxy Data recorded by the XDCAM systems (including those recorded by the SD version of the XDCAM system)
- Simple and quick cuts-only editing (storyboarding)* with the following fuctions;
  - Preview a result of the storyboard on the PC
  - Save the results as a Clip List (XDCAM EDL)
  - Convert the Proxy Data on the storyboard to an ASF file for replay on Windows Media Player
  - Export the Clip List in AAF, BE-9100, NewsBase™ XML, and ALE (Avid Log Exchange) formats
  - Transfer high-resolution clips according to the Clip List
- Disc copy – entire disc (all clips) or only selected clips
- Transfer selected clips with margins at the head and tail of the clips
- Registration of metadata such as "title", "creator", or "comments" for a disc or clip
- Registration of "Essence Mark" metadata for instant cue-up to desired scenes. Names for the Essence Mark can also be easily assigned
- Automatic renaming of clips by predetermined rule (use-predetermined prefix plus sequential numbers)
- Clip search function using the registered metadata as a keyword
- Print function allows metadata such as thumbnails, creation date, and comments to be printed out in an easy-to-see storyboard view

*The video and audio of a clip cannot be edited independently.

PDZ-1 Main GUI

Print Function

System requirements

OS: Windows XP (SP2 or later) (for PDW-F355/F335/F75/F30/U1)
Windows Vista Business 32bit/Ultimate 32bit (for PDW-U1)
CPU: Pentium M Processor or higher
NOTE:When using Live Logging Mode, recommended CPU is Pentium4 2GHz or higher
RAM: 512 MB or more
Others: Internet Explorer 6.0 (SP1 or later), DirectX 8.1b or later

PDZ-VX10 Sony XDCAM Viewer

The PDZ-VX10 software allows users to view high-resolution and Proxy MXF files recorded by XDCAM systems on their PC. With this software installed, thumbnails for all clips can be displayed in Windows Explorer, enabling the contents of the disc to be scanned through easily and quickly.

System requirements

OS: Windows XP (SP2 or later) (for PDW-F355/F335/F75/F30/U1)
Windows Vista Business 32bit/Ultimate 32bit (for PDW-U1)
CPU: Intel® Core™ Duo processor 1.83GHz or higher or Intel Pentium4 3GHz or higher
RAM: 1 GB or more
Others: Internet Explorer 6.0 (SP1 or later), DirectX 9.0c or later
The video playback performance will vary depending on the video format, file size, and the performance of the computer used. For more details on system requirements, please contact your nearest Sony office.

Proxy Viewer

The Proxy Viewer is a simple application to play back Proxy Data on a PC.

System requirements

OS: Windows XP (SP2 or later) (for PDW-F355/F335/F75/F30/U1)
Windows Vista Business 32bit/Ultimate 32bit (for PDW-U1)
CPU: Pentium M Processor or higher
RAM: 512 MB or more
Others: Internet Explorer 6.0 (SP1 or later), DirectX 8.1b or later

PDZK-P1 XDCAM Transfer for Apple Final Cut Pro nonlinear editing systems

The PDZK-P1 XDCAM Transfer is plug-in software for Apple Final Cut Pro nonlinear editing systems that provides native support for MXF files recorded by XDCAM systems. With this software installed, XDCAM devices can be mounted on Mac Finder via a FireWire/i.LINK connection, and users can seamlessly import, edit, and export recorded material.

System requirements

OS: Mac OS X version 10.4.10 or later
CPU: PowerPC G5 2GHz, Intel Core2Duo 2GHz, Intel Xeon 2GHz or higher
Others: QuickTime version 7.2 or later
Final Cut Pro version 6.0.1 or later

The latest versions of software can be downloaded from the Sony Website.
Please contact your nearest Sony office for details.

Optional Accessories

For PDW-F355/F335 Camcorders

PFD23A
Professional Disc

PFD50DLA
Professional Disc

LO-32BMT
2/3-inch Lens Mount Adaptor

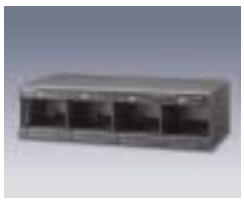
DXF-51
5-inch type B/W Viewfinder
**Requires optional accessory shoe kit (A-8274-968-B)*

BP-GL95/GL65
Lithium-ion Battery Pack

BP-L60S/L80S
Lithium-ion Battery Pack

BC-L70
Battery Charger

BC-M150
Battery Charger



BC-L500
Battery Charger

AC-DN10
AC Adaptor

RM-B150
Remote Control Unit

RM-B750
Remote Control Unit

CA-WR855
Camera Adaptor for
WRR-855A/855B

WRR-855A/855B
Wireless Microphone Receiver

WRR-861A/861B
Wireless Microphone Receiver
**Requires optional mounting bracket (A-8278-057-B)*

WRR-862A/862B
Wireless Microphone Receiver
**Requires optional mounting bracket (A-8278-057-A)*

ECM-674/678
Shotgun-type Electret
Condenser Microphone
**Requires K-1502 3-pin to 5-pin Conversion Cable*

ECM-680S
Shotgun-type Electret
Condenser Microphone

LC-H300
Carrying Case (Hard)

LC-DS300SFT
Carrying Case (Soft)

LCR-1
Rain Cover

MSX-256S/512S/1GS/2GS
Memory Stick Pro
MSH-64/128
Memory Stick

VMC-IL4615B/IL4635B
i.LINK Cable
(4-pin to 6-pin,1.5 m/3.5 m)

VMC-IL6615B/IL6635B
i.LINK Cable
(6-pin to 6-pin,1.5 m/3.5 m)

1/2-inch Type HD Lenses From Other Manufacturers

Canon
KH21ex5.7 IRSE

Canon
KH16ex5.7 IRSE

Canon
KH10ex3.6 IRSE

Canon
KH20x6.4 KRS

Canon
KH13x4.5 KRS

Fujinon
XS17x5.5BRM/BRD

Fujinon
XS13x3.3BRM/BRD

Fujinon
HS18x5.5BERM/BERD

Fujinon
HS16x4.6BERM/BERD

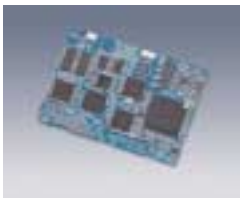
* For details, please contact each manufacturer.

For PDW-F75/F30 Decks

PFD23A
Professional Disc

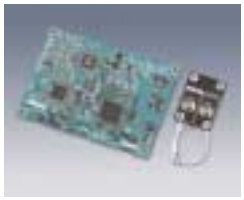
PFD50DLA**
Professional Disc

PDBK-101
Network Board



PDBK-102
MPEG-2 TS In/Out Board*

PDBK-103
HD Analog Input Board*



PDBK-104
SD Input Upconverter Board*

PDBK-A640
Cart Mount Kit (for PDW-F75)

RM-280
Editing Controller

RCC-5G
Remote Control Cable (5 m)

VMC-IL4615B/IL4635B
i.LINK Cable
(4-pin to 6-pin, 1.5 m/3.5 m)

VMC-IL6615B/IL6635B
i.LINK Cable
(6-pin to 6-pin, 1.5 m/3.5 m)

*Only one of the PDBK-102, PDBK-103 or PDBK-104 boards can be installed at any one time.
**The PFD50DLA disc cannot be used in the PDW-F30 deck.

XDCAM HD Camcorders Specifications

				PDW-F355L	PDW-F335L, PDW-F335K
General	Mass			Approx. 3.9 kg (body, 8 lb 10 oz)	Approx. 3.8 kg (body, 8 lb 6 oz) Approx. 6.8 kg (with VF, Mic, Disc, BP-GL95 battery, VCL-719BXS/B AF Lens)
	Power requirements			DC 12 V +5.0 V/-1.0 V	
	Power consumption			Approx. 34 W (while recording, with viewfinder, color LCD ON, manual lense)	PDW-F335L (with manual focus lens) : Approx. 30 W PDW-F335K (auto focus : ON) : Approx. 31 W (while recording, with viewfinder, color LCD ON)
	Operating temperature			-5 to 40 °C (+32 to +104 °F)	
	Storage temperature			-20 to +60 °C (-4 to +140 °F)	
	Humidity			10 to 90% (relative humidity)	
	Continuous operating time			Approx. 150 min. w/BP-GL95 battery	Approx. 160 min. w/BP-GL95 battery
	Recording format	Video		DVCAM (25 Mb/s)	
				MPEG HD (MPEG-2 MP@HL) HQ mode (VBR, maximum bit rate : 35 Mb/s) SP mode (CBR 25 Mb/s) LP mode (VBR, maximum bit rate : 18 Mb/s)	
		Proxy Video		MPEG-4	
		Audio		MPEG HD: 4 ch or 2 ch, 16 bits/48 kHz	
				DVCAM: 4 ch, 16 bits/48 kHz	
		Proxy Audio		A-law (4 ch/2 ch, 8 bit, 8 kHz)	
	Recording/Playback time (approx)			PFD50DLA(50 GB)	PFD23A(23.3 GB)
		DVCAM		185 minutes	85 minutes
		MPEG HD:	HQ, 35 Mb/s VBR	145 minutes(4-ch audio) 150 minutes(2-ch audio)	65 minutes(4-ch audio) 68 minutes(2-ch audio)
			SP,25 Mb/s VBR	190 minutes(4-ch audio) 200 minutes(2-ch audio)	85 minutes(4-ch audio) 90 minutes(2-ch audio)
			LP,35 Mb/s VBR	248 minutes(4-ch audio) 265 minutes(2-ch audio)	112 minutes(4-ch audio) 122 minutes(2-ch audio)
Signal inputs	Genlock video			BNC x1, 1.0 Vp-p, 75 Ω	
	Audio input			XLR-3pin (Female) x2, line / mic / mic +48 V selectable	
	Mic input			XLR-5-pin (Female, stereo) x1	
Signal outputs	SDI output			BNC x1* HD-SDI: SMPTE 292M (w/embedded audio) SD-SDI: SMPTE 259M (w/embedded audio)	– –
	Component (HD/SD analog) video output			–	BNC x3, Y/Pb/Pr, 1.0 Vp-p, 75 Ω
	Composite video output			BNC x1, 1.0 Vp-p, 75 Ω	
	Earphone			Mini-jack x1 (stereo)	
	Audio output (CH-1/CH-2)			XLR-5-pin (Male, stereo) x1	Pin-jacks x2, -10 dBu, 47 Ω
Other inputs/outputs	Timecode input			BNC x1, 0.5 to 18 Vp-p, 10 Ω	BNC x1 (input or output, selectable), (input: 0.5 to 18 Vp-p, 10 kΩ, output: 1.0 Vp-p, 75 Ω)
	Timecode output			BNC x1, 1.0 Vp-p, 75 Ω	
	Lens			12-pin or 14-pin type hot-shoe	
	Remote			8-pin	
	Light			2-pin, DC 12 V, max. 50 W	
	DC input			XLR-4-pin (Male) x1	
	DC output			4-pin (for wireless microphone receiver), DC 12 V (MAX 0.2 A)	
	i.LINK			IEEE 1394, 6-pin x1, AV/C (DV stream output) or File Access Mode	
Audio performance	Frequency response			20 Hz to 20 kHz, +0.5 dB/-1.0 dB	
	Dynamic range			More than 85 dB	
	Distortion			Less than 0.08% (at 1 kHz, reference level)	
	Crosstalk			Less than -70 dB (at 1 kHz, reference level)	
	Wow & flutter			Below measurable limit	
	Headroom			20/18/16/12 dB (selectable)	
Camera section	Pickup device			3-chip 1/2-inch type HD Power HAD CCD	
	Effective picture elements			Approx. 1.56 Mega Pixels (1,440 x 1,080)	
	Optical system			F1.4 prism	
	Built-in optical filters			1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	
	Shutter speed		59.94i	1/100, 1/125, 1/250, 1/500 ,1/1000, 1/2000, ECS, SLS	
			29.97p	1/40, 1/60, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS	
			23.98p	1/32, 1/48, 1/96, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS	
			50i	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS	
			25p	1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, ECS, SLS	
	Slow Shutter (SLS)			1 to 8, 16, 32, and 64 frame accumulation	
	Slow & Quick Motion function (*MPEG HD mode only)		23.98p/29.97p	Selectable from 4 to 60 frame/sec as recording frame rate	–
			25p	Selectable from 4 to 50 frame/sec as recording frame rate	
	Lens mount			SONY 1/2-inch type bayonet mount	
	Sensitivity (2000 lx, 89.9% reflectance)			F9 (typical)	
	Minimum illumination			Approx. 0.004 lx (F1.4 lens, +48 dB turbo gain, with 64 frame accumulation)	
	Gain selection			-3, 0, 3, 6, 9, 12, 18, 24, 30, 36, 42, 48 dB	
	Smear level			-120 dB (typical)	
	S/N ratio			54 dB (typical, HD output)	
	Modulation depth at 21 MHz			45% (typical)	
	Geometric distortion			Below measurable level (w/o lens)	
Viewfinder	CRT			2.0-inch type monochrome	
	Indicators			REC (x2), TALLY, BATT, SHUTTER, GAIN UP	
Built-in LCD monitor				3.5-inch type color LCD monitor	
Supplied accessories				DXF-20W Viewfinder (x1)	
				Electret condenser stereo microphone (x1), Lens mount cap (x1), Shoulder belt (x1), VCT-U14 Tripod Adaptor (x1), Frange focal length adjustment test chart (x1), Operation manual (x1), PDZ-1 Proxy Browsing Software (x1), Proxy Viewer Software (x1), Professional Disc PFD23A (x1)	

**HD-SDI output and SD-SDI output share the same connector.*

XDCAM HD Decks Specifications

				PDW-F75 Recorder	PDW-F30 Viewer
General	Power requirements			100 V to 240 V AC, 50/60 Hz	
	Power consumption			70 W	
	Operating temperature			+5 to +40 °C (+41 to +104 °F)	
	Storage temperature			-20 to +60 °C (-4 to +140 °F)	
	Humidity			20 to 90% (relative humidity)	
	Mass			7.2 kg (15 lb 6 oz)	
	Dimensions (W x H x D)			307 x 100 x 411 mm (12 1/8 x 4 x 16 1/2 inches)	
	Recording format	Video		MPEG HD (MPEG-2 MP@HL) HQ mode (VBR,maximum bit rate : 35 Mb/s), SP mode (CBR, 25 Mb/s), LP mode (VBR, maximum bit rate : 18 Mb/s) DVCAM (CBR, 25 Mb/s) (Option: PDBK-104)	–
		Proxy Video		MPEG-4	–
		Audio		MPEG HD: 4 ch or 2 ch, 16 bits/48 kHz DVCAM: 4 ch, 16 bit/48 kHz	
		Proxy Audio		A-law (4 ch/2 ch, 8 bit, 8 kHz)	
	Playback format	Video		MPEG HD (MPEG-2 MP@HL): HQ mode (VBR, maximum bit rate : 35 Mb/s), SP mode (CBR, 25 Mb/s), LP mode (VBR, maximum bit rate : 18 Mb/s), DVCAM (CBR, 25 Mb/s)	
		Proxy Video		MPEG-4	
		Audio		MPEG HD: 4 ch or 2 ch, 16 bits/48 kHz DVCAM: 4 ch, 16 bit/48 kHz	
		Proxy Audio		A-law (4 ch/2 ch, 8 bit, 8 kHz)	
	Recording/playback time (approx)	DVCAM		PFD50DLA(50 GB)**	PFD23A(23.3 GB)
				185 minutes	85 minutes
		MPEG HD:	HQ, 35 Mb/s VBR	145 minutes(4-ch audio)	65 minutes(4-ch audio)
				150 minutes(2-ch audio)	68 minutes(2-ch audio)
			SP,25 Mb/s VBR	190 minutes(4-ch audio)	85 minutes(4-ch audio)
				200 minutes(2-ch audio)	90 minutes(2-ch audio)
			LP,35 Mb/s VBR	248 minutes(4-ch audio)	112 minutes(4-ch audio)
				265 minutes(2-ch audio)	122 minutes(2-ch audio)
Signal inputs	Search speed (in color)	Jog mode		±1 time normal speed	
		Variable Speed mode		-1 to +2 times normal speed	
		Shuttle mode		±20 times normal speed	
	Analog reference input			BNC x2(including loop through), HD Tri-level sync or SD composite sync (0.3 Vp-p/75 Ω/sync negative)	–
	Analog composite input (option: PDBK-104)			BNC x1, RS-170M	–
	Analog HD component input (option: PDBK-103)			BNC x4, Y/Pb/Pr/(Sync) or G/B/R/(Sync)	–
	HD-SDI input			BNC x1, SMPTE 292M	–
	SD-SDI input (option: PDBK-104)			BNC x1, SMPTE 259M	–
	Analog audio input			XLR x2 (channel selectable), +4/0/-3/-6 dBu (selectable), 10 kΩ, balanced	–
	Digital audio input			AES/EBU, BNC x2, 4 channels	–
	Timecode input			BNC x1, SMPTE Time code	–
Signal outputs	Analog composite video output			BNC x1, (1.0 Vp-p/75 Ω/sync negative) , RCA-pin x1,(1.0 Vp-p/75 Ω/sync negative)	
	Monitor output			D-sub 15-pin (G/B/R or Y/Pb/Pr)	
	Built-in display			3.5-inch type color LCD monitor	
	HD-SDI output			BNC x2, SMPTE 292M	–
	SD-SDI output			BNC x1, SMPTE 259M	–
	Analog audio output			XLR x2 (channel selectable), +4/0/-3/-6 dBu (selectable), 600 Ω load, balanced	
	Audio monitor output			RCA x2 (L, R, Mix), -6dBu, 47 kΩ, unbalanced	
	Headphone output			Stereo phone jack, -14dBu, 8 Ω, unbalanced	
	Digital audio output			AES/EBU, BNC x2, 4 channels	–
	Timecode output			BNC x1, SMPTE Timecode	–
Other inputs/outputs	i.LINK			IEEE1394, 6-pin x1, AV/C (DV stream output) or File Access Mode	
	i.LINK(HDV 1080i) (option: PDBK-102)			IEEE1394, 6-pin x1, HDV 1080i IN/OUT	
	Ethernet (option: PDBK-101)			1000Base-T (RJ-45)	
	RS-422A			D-sub 9-pin x 1	
	RS-232C			D-sub 9-pin x 1	
	CONTROL			Mini-jack 4-pin	–
Video performance	Sampling frequency			Y: 74.25 MHz, R-Y/B-Y: 37.125 MHz	
	Quantization			8 bits/sample	
	Analog composite output(DV)			Frequency response : 0 to 4.2 MHz +1.0/-3.0 dB (525), 0 to 4.8 MHz +1.0/-3.0 dB (625) S/N(Y) : 53 dB or more, Y/C delay : ±25 ns or less, K-factor(K2T) : 2% or less	
Processor adjustment range	Video level			±3 dB	±3 dB
	Chroma level			±3 dB	±3 dB
	Set up/black level			±30 IRE	±30 IRE
	Chroma phase			±30 deg	±30 deg
	System sync phase			±3 µs	–
	System sync phase (fine)			±200 ns	–
Audio performance	Sampling frequency			48 kHz	
	Quantization			16 bits/2 channels or 16 bits/4 channels	
	Frequency response			20 Hz to 20 kHz +0.5/-1.0 dB(0 dB at 1 kHz)	
	Dynamic range			90 dB or more	
	Distortion			0.05% or less (at 1 kHz)	
	Headroom			20/18/16/12 dB (selectable)	
Supplied accessories				Operation manual (x1), Vertical installation stand (x1), Infrared remote commander (x1), PDZ-1 Proxy Browsing Software (x1), Proxy Viewer Software (x1),	

**Only one of the PDBK-102, PDBK-103 or PBDK-104 boards can be installed at any one time.*

***The PFD50DLA disc cannot be used in the PDW-F30 deck.*

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